

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
CENTRAL VALLEY REGION**

ORDER NO. R5-2005-XXX

NPDES NO. CA0079545

**MONITORING AND REPORTING PROGRAM
FOR
SOUTHERN CALIFORNIA EDISON COMPANY
BIG CREEK POWERHOUSE NO. 1
DOMESTIC WASTEWATER TREATMENT PLANT**

This Monitoring and Reporting Program (MRP) is issued pursuant to California Water Code Sections 13383 and 13267. The Discharger shall not deviate from this Program unless and until the Regional Board or Executive Officer issues a revised MRP. Specific sample station locations shall be established under direction of the Regional Board's staff, and a description of the stations shall be attached to the Discharger's copy of the Order. Sampling locations may be changed only with the written concurrence of Regional Board staff. A description of the proposed changes and Regional Board staff's written concurrence shall be attached to the Discharger's copy of this MRP.

INFLUENT MONITORING

Samples shall be collected at **Influent Point 001**. Samples shall be collected at approximately the same time as effluent samples and shall be representative of the influent for the period sampled. Influent monitoring shall include at least the following:

Constituents	Units	Type of Sample	Sampling Frequency
20°C BOD ₅	mg/L, lbs/day	16-hour composite ¹	Weekly
<u>Suspended Solids</u>	mg/L, lbs/day	16-hour composite ¹	Weekly

¹ Composite samples must be flow-proportioned and may consist of flow-proportioned grab samples.

EFFLUENT MONITORING

Effluent samples shall be collected at **Discharge Point 001**, downstream from the last connection through which wastes can be discharged. Effluent samples shall be representative of the volume and quality of the discharge. Time of collection of samples shall be recorded. Effluent monitoring shall include at least the following:

Constituents	Units	Type of Sample	Sampling Frequency
Flow	mgd	Metered	Continuous
Settleable Solids	mL/L	Grab	Weekly
pH	standard units	Grab	3/Week ³
20°C BOD ₅	mg/L, lbs/day	16-hour composite ¹	Weekly
Suspended Solids	mg/L, lbs/day	16-hour composite ¹	Weekly
Total Coliform Organisms	MPN/100 mL	Grab	3/Week ³
Ammonia ²	mg/L	Grab	2/Month
Total Phosphorous	mg/L	Grab	2/Month
EC	µmhos/cm	Grab	2/Month

¹ Composite samples shall be flow proportional composite samples.

² Temperature and pH shall be determined at the time the sample is taken for ammonia analysis. Un-ionized ammonia shall be calculated based on the results. Ammonia results shall be reported as ammonia and un-ionized ammonia.

³ Samples shall be taken on non-consecutive days.

RECEIVING WATER MONITORING

Receiving water samples shall be collected at the following sampling stations:

Station	Description
R-1	To be established with the concurrence of staff. R-1 shall be located in Big Creek and shall provide a sample representative of the water in the creek just prior to the point of discharge. R-1 shall not be more than 300 feet upstream from the point of discharge. A greater distance may be acceptable provided the Discharger submits proper justification that the prescribed distance is inaccessible.
R-2	Not to exceed 900 feet downstream from the point of discharge to Big Creek. A greater distance may be acceptable provided the Discharger submits proper justification that the prescribed distance is inaccessible.

All receiving water samples shall be grab samples. Receiving water monitoring shall include at least the following:

Constituents	Units	Station ¹	Sampling Frequency
Dissolved Oxygen	mg/L	R-1, R-2	Quarterly
pH	standard units	R-1, R-2	Quarterly
Temperature	°F	R-1, R-2	Quarterly
Turbidity	NTU	R-1, R-2	Quarterly
Ammonia ²	mg/L	R-1, R-2	Quarterly
EC	µmhos/cm	R-1, R-2	Quarterly
Total Coliform Organisms	MPN/100 mL	R-1, R-2	Quarterly

¹ All samples shall be grab samples.

² Temperature and pH shall be determined at the time the sample is taken for ammonia analysis. Un-ionized ammonia shall be calculated based on the results. Ammonia results shall be reported as ammonia and un-ionized ammonia.

In conducting the receiving water sampling, a log shall be kept of the receiving water conditions throughout the reach bounded by R-1 and R-2. Attention shall be given to the presence or absence of:

- a. Floating or suspended matter
- b. Discoloration
- c. Bottom deposits
- d. Aquatic life
- e. Visible films, sheens or coatings
- f. Fungi, slimes, or objectionable growths
- g. Potential nuisance conditions

Notes on receiving water conditions shall be summarized in the monitoring report.

THREE SPECIES CHRONIC TOXICITY MONITORING

Chronic toxicity monitoring shall be conducted to determine whether the effluent is contributing toxicity to the receiving water. The testing shall be conducted as specified in EPA-821-R-02-013, *Short-Term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms*, Fourth Edition, October 2002. Composite samples shall be collected at Discharge Point 001. Twenty-four hour composite samples shall be representative of the volume and quality of the discharge. Time of sample collection shall be recorded. The sensitivity of the test organisms to a reference toxicant shall be determined concurrently with each bioassay and reported with the test results. Both the reference toxicant and effluent test must meet all test acceptability criteria as specified in the chronic toxicity estimating manual listed above. If the test acceptability criteria are not achieved, then the Discharger must re-sample and re-test within 14 days. Chronic toxicity monitoring shall include the following:

Species: *Pimephales promelas*, *Ceriodaphnia dubia* and *Selenastrum capricornutum*

Frequency: One time no more than 365 days and no less than 180 days prior to expiration of this Order

Dilution Series:

	<u>Dilutions (%)</u>					<u>Controls</u>	
	<u>100</u>	<u>50</u>	<u>25</u>	<u>12.5</u>	<u>6.25</u>		
						Receiving	Lab
						<u>Water</u>	<u>Water</u>
% Effluent	100	50	25	12.5	6.25	0	0
% Dilution Water ¹	0	50	75	87.5	93.75	100	0
% Lab Water ²	0	0	0	0	0	0	100

¹ Dilution water shall be receiving water taken upstream from the discharge point or in a location unaffected by the discharge. The dilution series may be altered upon approval of Regional Board staff.

² Lab water shall meet USEPA protocol requirements

SLUDGE MONITORING

A composite sample of sludge shall be collected when sludge is removed for disposal, but no more frequently than annually, in accordance with EPA's POTW Sludge Sampling and Analysis Guidance Document, August 1989, and tested for the following metals:

Arsenic	Lead	Selenium
Cadmium	Mercury	Zinc
Chromium	Molybdenum	
Copper	Nickel	

Sampling records shall be retained for a minimum of five years. A log shall be kept of sludge quantities generated and of handling and disposal activities. The frequency of entries is discretionary, however, the log should be complete enough to serve as a basis for part of the annual report.

By **30 January of each year**, the Discharger shall submit:

- Annual sludge production in dry tons and percent solids.
- A schematic diagram showing sludge handling facilities and a solids flow diagram.
- A description of disposal methods including the following information related to the disposal methods used at the disposal facility: (1) the location of the site, and (2) the application rate in lbs/acre/year (specify wet and dry).

WATER SUPPLY MONITORING

A sampling station shall be established where a representative sample of the water supply can be obtained. Water supply monitoring shall include at least the following:

Constituents	Units	Type of Sample	Sampling Frequency
EC	µmhos/cm	Grab	Monthly

¹ If the source water is from more than one source, the EC shall be reported as a weighted average and include copies of supporting calculations.

PRIORITY POLLUTANT MONITORING

The SIP requires Regional Boards to require periodic monitoring for pollutants for which criteria or objectives apply and for which no effluent limitations have been established. Accordingly, the Regional Board is requiring, as part of this Monitoring and Reporting Program, that the Discharger conduct effluent monitoring and receiving water monitoring of priority pollutants one time no more than 365 days and no less than 180 days prior to expiration of this Order. The list of priority pollutants and required minimum levels (MLs) (or criterion quantitation limitations) is included as Attachment B. The Discharger must analyze pH and hardness at the same time as priority pollutants.

All analyses shall be performed at a laboratory certified by the California Department of Health Services. The laboratory is required to submit the Minimum Level (ML) and the Method Detection Limit (MDL) with the reported results for each constituent. The MDL should be as close as practicable to the USEPA MDL determined by the procedure found in 40 CFR Part 136. The results of analytical determinations for the presence of chemical constituents in a sample shall use the following reporting protocols:

- Sample results greater than or equal to the reported ML shall be reported as measured by the laboratory.
- Sample results less than the reported ML, but greater than or equal to the laboratory's MDL, shall be reported as "Detected but Not Quantified," or DNQ. The estimated chemical concentration of the sample shall also be reported.
- For the purposes of data collection, the laboratory shall write the estimated chemical concentration next to DNQ as well as the words "Estimated Concentration." Numerical estimates of data quality may be by percent accuracy (+ or – a percentage of the reported value), numerical ranges (low to high), or any other means considered appropriate by the laboratory.
- Sample results that are less than the laboratory's MDL shall be reported as "Not Detected" or ND.

REPORTING

Monitoring results shall be submitted to the Regional Board by the **1st day of the second month** following sample collection. Quarterly and annual monitoring results and reports shall be submitted by the **1st day of the second month** following each calendar quarter and year, respectively. Reports shall be submitted whether or not there was a discharge during the reporting period. Failure to submit a report in a timely manner will result in an assessment of a Minimum Mandatory Penalty pursuant to CWC Section 13385.

In reporting the monitoring data, the Discharger shall arrange the data in tabular form so that the date, the constituents, applicable limits, and the concentrations or other analytical results are readily discernible. The data shall be summarized in such a manner to illustrate clearly whether the discharge complies with waste discharge requirements. The highest daily maximum for the month, monthly and weekly averages, and medians, and removal efficiencies (%) for BOD and Suspended Solids, shall be determined and recorded.

If the Discharger monitors any pollutant at the locations designated herein more frequently than is required by this Order, the results of such monitoring shall be included in the calculation and reporting of the values required in the discharge monitoring report form. Such increased frequency shall be indicated on the discharge monitoring report form.

By **1 February of each year**, the Discharger shall submit a written report to the Executive Officer containing the following:

- a. The names, certificate grades, and general responsibilities of all persons employed at the WWTP (Standard Provision A.5).
- b. The names and telephone numbers of persons to contact regarding the plant for emergency and routine situations.
- c. A statement certifying when the flow meter and other monitoring instruments and devices were last calibrated, including identification of who performed the calibration (Standard Provision C.6).
- d. A statement certifying whether the current operation and maintenance manual, and contingency plan, reflect the plant as currently constructed and operated, and the dates when these documents were last revised and last reviewed for adequacy.

The Discharger may also be requested to submit an annual report to the Regional Board with both tabular and graphical summaries of the monitoring data obtained during the previous year. Any such request shall be made in writing. The report shall discuss the facility's compliance record. If violations have occurred, the report shall also discuss the corrective actions taken and planned to bring the discharge into full compliance with the waste discharge requirements.

All reports submitted in response to this Order shall comply with the signatory requirements of Standard Provision D.6.

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SOUTHERN CALIFORNIA EDISON COMPANY
NPDES NO. CA0079545
BIG CREEK POWERHOUSE NO. 1, DOMESTIC WWTP
FRESNO COUNTY

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The Discharger shall implement the above monitoring program on the first day of the month following effective date of this Order.

THOMAS R. PINKOS, Executive Officer

(Date)

LK/AWL/JE: 9/23/05